

Editors' Introduction

Environment, inequality, and economy: the Mexican situation

Many Mexican and non-Mexican economists continue to pay attention to the state of the Mexican economy, with particular attention devoted to the rather dismal growth performance over the past several decades (Mántey 2011; Moreno-Brid and Ros 2009; Sánchez Juárez 2011; Hanson 2010; Kehoe and Ruhl 2010). The mystery seems to be why, in the wake of sweeping reforms inspired by the Washington Consensus, Mexico's growth rates have been so anemic. While the evidence is somewhat mixed, it seems that just when the reforms should have begun to produce promising results, China joined the World Trade Organization (WTO). To Mexico's detriment, China became a major exporter of many of the same products that had previously formed the export base of Mexico. In contrast, other Latin American countries tend to export the minerals, agricultural products and assorted commodities to China, and so as the Chinese economy has flourished, countries in the region *other than* Mexico have benefitted (Hanson 2010). An additional irony is that Mexico may be suffering from its proximity to the United States (U.S.) economy. This *curse of proximity* suggests that with a large and ready market so close at hand, and with low transportation costs, manufacturing in Mexico has been somewhat shielded from intense competition by other possible exporting nations at greater distances from the U.S. market. Its economy has been able –it has had the “luxury”– of being slack and inefficient. Thus, when China went through serious reforms to gain accession to the WTO, it quickly became a major source of U.S. imports and Mexican suppliers were caught in a productivity trap.

The consensus seems to be that ordinary trade models do not suggest that increased trade is beneficial for productivity, nor does trade do much to boost real GDP –although it is said to increase welfare. Kehoe and Ruhl suggest that the reforms of the mid-1980s were beneficial in that “[...] welfare increased more in Mexico than the real GDP data indicate [...]” (Kehoe and Ruhl 2010:1007).

This matter of increases in welfare, despite minimal growth, brings us to the matter of inequality. Specifically, how is welfare being measured, and therefore how can we be so sure that welfare has increased? Hanson (2010), for instance, calls attention to important flaws in the institutional architecture of the Mexican economy. For instance, the provision of domestic credit to the private sector in Mexico is exceedingly low –under 18% of Gross Domestic

Product (GDP). In this regard, Mexico is down there with Argentina and Venezuela, and below Colombia and Peru. Mexico's ratio of domestic credit to GDP is only one-half that of Brazil. Financial reforms have benefitted car loans and home purchases, but have done little to stimulate commercial lending where job creation might occur. Small-scale entrepreneurs are particularly credit constrained (Hanson 2010). McKenzie and Woodruff report rates of return to capital in the range of 20-32 percent per month –three to five times above market rates of interest (McKenzie and Woodruff 2008). These rates are possible only because small enterprises are starved for credit. Other signs of stifled economic opportunity could be introduced.

The question worth asking concerns whether more robust growth in the Mexican economy over the recent past would have reduced the level of inequality. While this is an open question, clearly there is no linear relationship between output growth and the level of income inequality. Moreover, economic growth may, under certain circumstances, involve polarization of income distribution and depletion of natural resources and deterioration of the environment.

We offer this set of papers on inequality and the environment and socio-economic development because it is our contention that there has been far too little attention paid to inequality in Mexico. Of equal importance, there is little accessible scholarship that connects issues in inequality to environmental stresses.

The paper by López-Feldman, Taylor, and Yúnez-Naude offers evidence that the use of natural resources –and the reliance upon that use– is an activity that is predominantly associated with poor households. Income from natural resources represents on average 16% of total income in the poorest quintile of Mexico's rural population but only 1% in the top quintile. That is, inequality in the distribution of wealth at the village level is positively (and significantly) correlated with participation and dependence. Thus while in rural Mexico natural resource extraction is predominantly an activity carried out by poor households, and the poor depend more on natural resources as a source of income, when the rich extract natural resources the resulting income from this activity is considerably higher than what the poor manage to obtain. The average natural resource income for the poorest households that participate in the activity represents only 55% of what the richest get from the same income source.

There are important differences across Mexico in terms of both participation and dependence on resource income. These differences are most pronounced between northern Mexico and southern Mexico. Higher participation rates

are found in the south, and most households show a greater dependence on natural resource income than is the case for those in the north. These differences surely reflect the varying geographic distribution of resources available for appropriation, as well as the limited opportunities for off-farm employment in the southern part of the country. The south-southeast region has the highest rate of participation, with almost 90% of the poorest households involved in resource use activities, while the northwest region has the lowest rate (18%).

Armando Sánchez, Carlos Gay and Francisco Estrada apply microeconomic tools and conduct household surveys to estimate the economic impacts of climate change on poor households in Mexico City. Their paper offers some public policy guides to cope with the negative effects of climate change at the household level. Their empirical results show that inhabitants of some important areas of Mexico City will be severely affected by climate change shocks, thus reducing water supply, disposable income and the share of income available for food expenditure. They also find that climate change shocks will deteriorate inhabitants' household's health conditions, which will induce them to migrate elsewhere.

Using a Structural Vector Error Correction (SVEC) model approach and quarterly data for the period 1993-2010 Lanteri deals with macroeconomic shocks on agriculture in the Argentine economy; his findings identify several structural shocks which mainly emerge from the supply side.

The paper by Alix-Garcia offers an analysis of the sources of inequality in the *ejido* communities of Mexico. The author identifies two indicators of inequality: (1) land holdings at the time of the post-Revolutionary agrarian reform; and (2) number of cattle per household in 2002. The author finds that both of these measures are highly correlated with other income indicators, and that the first indicator (land holdings) is highly determinative of the second (cattle per household). The implication seems to be a persistence of inequality over time. Survey data from 406 *ejidos* and *comunidades* (common property villages) is used to assess how high pre-colonial population density, the timing of the Agrarian Reform, and geographic characteristics tend to determine the division of land at the time of the founding of each *ejido*, and how these influences continue to dominate current wealth. The author then decomposes land inequality to demonstrate that this inequality is much higher between *ejidos* than it is within *ejidos* –just the opposite of the situation with cattle. However, the indicators of *ejido* cattle inequality are quite similar to those of land. Pre-colonial populations, the date of *ejido* founding, and geographic characteristics are all found to have important effects on the distribution of land within and between *ejidos*. The data also show that *ejidos* formed early in the reform tend

to have been allocated less land, although early formation does not appear to have affected the between-*ejido* distribution of cattle. On the other hand, early *ejidos* tend to have highly unequal cattle distributions.

Pagliari, Bucciarelli and Alessi discuss the influence of Adam Smith on Amartya Sen's economic and moral thought. Following Smith's and Sen's ideas, the authors redefine globalization and argue that a global division of labour "could be a potential instrument to promote socio-economic development". Of course, this would necessitate that participating agents obey appropriate ethic rules, and that an effective regulatory framework enforces their fulfilment at an international level.

We hope these papers stimulate yet further research on inequality and the environment in Mexico.

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